

# Solar Events

## Student Activity Book

### I. Introduction

The sun gives us light and warmth, but it also gives us problems. The sun sends ions (charged atoms) and electrons into space at incredible speeds. When these particles interact with Earth's atmosphere, they cause several major problems ranging from power failures to zapped satellites.

Continue with this activity to see how the sun can be harmful.

### Get Info Objectives

1. List effects of solar events.
2. Describe solar effects on human activities.
3. Describe solar effects on electric companies.

### Gather Data Objectives

1. Describe the relationship of geomagnetic disturbances to solar events.
2. Use averaged solar data to determine the best time to debug electronic equipment.
3. Compute the diameter, escape velocity, and surface speed of the sun.

### Application Objectives

1. Explain observations of the average sunspot number.
2. Justify the cost of an early warning system for geomagnetic storms.
3. Explain the international nature of solar event problems.